

# ATARI COMPUTER ENTHUSIASTS [N.S.W.]

A.C.E. (N.S.W.)  
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INSIDE INFO

Nº 35



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# EDITORIAL

Hello and welcome to Inside Info No. 35. There will be no February issue. You will still receive 6 issues having paid your membership fee.

As you know A.C.E. NSW has a new committee. They are a good team and are rapidly getting things under control.

Inside Info. now has a separate ST section. 8 bit users will still be catered for. The 8 bit machine, contrary to some reports, is not dead!!!

A Macintosh emulator was demonstrated at the April meeting, by our President. Another Mac emulator is advertised in the ST section. Both emulators require two Apple eproms. These are difficult to acquire. So if you are considering a Mac emulator, get the Apple chips first.

The club has finally acquired a new modem for the bulletin board - we will no longer be limited to the 300 baud rate! With a little bit of luck a hard disk drive will also be installed within a few months!

The release of the Mega STs opens up new vistas for Atari. The blitter chip and the new eproms should be available as upgrades towards the end of the year.

This issue was prepared on Publishing Partner. The program has some serious faults, particularly it lacks a facility for automatic kerning (spacing between letters). This fault has been rectified in Publishing Partner Professional.

Simon Hodder, of Hodder Bros. will donate the latest desktop publishing program from GST Timeworks, to Inside Info as soon

as it becomes available. Their shop is at 211 Ben Boyd Rd, Neutral Bay. Tel 908 1388. They are promoting the ST range - at very reasonable prices.

Greg Smith

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## PRESIDENT'S MESSAGE

Hello, and welcome to the first Inside Info for 1988. My name is Tony McGrath and I am the new President of A.C.E. (NSW).

As many of you may be aware, there has been a significant change in the composition of the new committee for this year and this has caused a few problems.

Especially concerning the production of Inside Info. These problems are slowly being overcome, and I look forward to the regular production of what I believe is a great newsletter.

With the new committee has come a new impetus to provide the type of service that our members require.

This is a time of significant changes within the computer world. This is obvious within the ATARI sphere, with the introduction of a whole new range of products that cover the whole computer spectrum, from the new XE Games Machine to the ABAQ Transputer.

To support this wide range of computers, and computer users, we, as A.C.E., need to adapt to the changing needs of our members.

To make these changes, the committee needs to know exactly what you, the members, want in terms of information, software and general support. But we

also need your support to help provide information, in the form of articles, and software to add to our software collection.

To help aid the dissemination of information, the format of monthly meetings has been changed significantly. We have booked two meeting rooms for most meeting nights this year. This allows for greater flexibility during meetings, and we have a number of special topics that will be arranged to take advantage of this flexibility.

We have plans to cover, in depth, such areas as Desk top Publishing, Graphics, Music Systems and Office Automation.

To enhance these special topics, we will be experimenting with video-taping these meetings for later distribution to members for a small fee.

There is a strong need for all of us to realise the widening expanse of experience and interest that A.C.E. covers.

I feel that we all need to be aware of what everyone is doing because we may need to call upon that experience ourselves as we move into the future.

Until then, happy computing.

Tony McGrath

\*\*\*\*\*

## The A.C.E. (NSW)

PRESIDENT ..... Tony McGrath  
 VICE-PRESIDENT.... Tom Plackowski  
 ST SOFTWARE..... Tony McGrath  
 EDITOR..... Greg Smith  
 SECRETARY..... David Finnie

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TREASURER..... Steven Carr  
 8 BIT SOFTWARE..... Garry Spiteri  
 MEETINGS ORGANIZER.... Doug Stone  
 PRACS SYSOP..... Larry O'Keefe  
 LIBRARIAN..... Joe Delman

# LIBRARY RAMBLINGS

Greetings fellow Atarians! Let me start my first library article by thanking Brian Elliot for his help and suggestions regarding our Library. I hope I can approach his efforts in this job. My first impressions are that many of you reading Inside Info are new club members who would like to know what is in our Library. In answer to your questions I have prepared the list below. This list includes only books and magazines. There are so many newsletters from other clubs (most of which we don't receive any more), that I decided not to list them. In future articles I will continue to summarise the newsletters that we still receive. However, if enough of you DESPERATELY want a list of those newsletters which we have but no longer receive, then please let me know. So, on to the list:

## MAGAZINES

### **ANALOG**

Issues 11,12,16,17-19,21-23,25,34

### **COMPUTE**

Issues (June 1981)  
13-15,20,21,24,27,28,33,37-78,81

### **COMPUTER ATARI ST**

October, December 1986, June  
1987

### **CREATIVE COMPUTING**

Volume 6 #8 (August 1980)  
Volume 6 #10  
Volume 7 #2 - #10  
Volume 9 #11

### **ATARI CONNECTION**

Fall, Spring 1981  
Spring, Winter 1982  
Spring 1983  
Spring, Winter 1984

### **ATARI EXPLORER**

February 1985 - December 1986

### **ANTIC**

Volume 1 #4 (Oct. 1982) - #6  
Volume 2 #1 - #4, #6 - #12  
Volume 3 #1 - #12  
Volume 4 #1 - #12  
Volume 5 #1 - #3, #5 - #10, #12  
Volume 6 #2, #3, #5, #6

### **HI-RES**

June 1984 - December 1985

### **PAGE 6**

Issues 8,10,11,17,18,20,23,24

### **COMPUTER & VIDEO GAMES**

December 1983

### **COMPUTER GAMING WORLD**

Volume 5 #4

### **ATARI USER**

Volume 1 #12 (April 1986)

## BOOKS

### **ST Basic Sourcebook**

### **Operating System Users Manual**

- Atari 400/800

### **DOS II Utilities Source Listing**

- Atari 400/800

### **Hardware Manual - Atari 400/800**

### **De Re Atari - Atari 400/800**

### **Operating System Source Listing**

- Atari 400/800

### **Atari Basic (Richard Haskell 1983)**

### **Kids & The Atari (E.H. Carlson 1983)**

### **The Book Of Atari Software 1983-**

(J. Stanton, R.P. Wells, S. Rocowansky)

### **Computers For Everybody 1983-**

(J. Willis & M. Miller)

### **Repairing Your Home Video Game**

- 1984 (G. Jennings)

### **The Atari 800XL: A Practical Guide**

- 1984 (T. Blackadar)

### **Getting Started With The Atari**

600XL 1984- (P. Goode)

The Best Atari Software 1984-  
(Editors of "CONSUMER GUIDE")  
Writing Strategy Games On Your  
Atari Computer 1983- (J. White)  
Random Alley Adventure For The  
Atari 1984- (M. Orkin)  
The Atari 600XL Program Book 1983  
- (P. Goode)  
Designs From Your Mind With Atari  
Graphics 1983- (T. Rowley)  
Computers For Everybody 1984-  
(J. Willis & M. Miller)  
32 Basic Programs For The Atari  
Computer 1984- (T. Rugg, T. Barry)  
Inside Atari Basic, A Fast, Fun, and  
Friendly Approach 1983-  
(Bill Carris)  
Atari In Wonderland 1983- (Fred D'  
Ignazio)

As you no doubt noticed, there  
are many gaps in issues of  
magazines. This is because

- (1) We may not have bought/  
received an issue for some reason.
- (2) That issue may have been lost  
(?)
- (3) That issue may be out on loan  
to a club member.

(4) A club member may have  
borrowed a magazine a long time  
ago and forgotten to return it.  
With previous Librarians using  
different methods to keep track  
of such things, it is difficult if not  
impossible to track down such  
items, so I kneel before you and  
plead for their return!

Rather than use incompatible  
databases or slips of paper to  
record loans and returns, I'm using  
a simple note pad which can be  
passed on to future Librarians  
who will be easily able to work out  
what's going on - YOU HAVE BEEN  
WARNED!

In conclusion I'd just like to say  
that you can order magazines or  
books by mail (using the order  
form in Inside Info.) or by choosing  
from the collection I bring to  
meetings.

Joe Delman

## A WALK DOWN MEMORY LANE

OF

## THINGS MOM NEVER TOLD YOU

by Henry Malavolti

[Ed. note: the programs listed  
with-in can be found by running  
PGM1 and PGM2 by booting DOS from  
a separate disk, and ENTERing them  
from this disk.]

An amazing location in memory is  
the address 842. This address  
controls the input from / to the  
screen. In other words, by simply  
'poking' certain values into this  
address the computer can be made  
to read information that it has  
printed on the screen and thus  
either delete unnecessary lines from  
a program or have a running  
program add lines or change lines!  
Think of it!

A program that can RE-WRITE  
itself! Thereby increasing free  
memory for the storage of  
information or improving speed.

Another use for 842 is that a  
simple program can be written to do  
most of the work in writing DATA  
lines, saving you, the programmer,  
considerable typing effort.

Here is a little program that will  
write the DATA line, assign it a line  
number automatically and keep on  
going. It does the repetitious work  
and all the programmer does is add  
the data.

### How it works:

Line 100 dimensions a string that we will use and sets the value for our first line number.

Line 110 POSITIONS our INPUT on screen to a spot where it won't interfere with our data when the computer creates a line for memory. This is not important later in your own program that does not need to display the computer's performance. But by watching this one you will see what is going on.

Lines 120 thru 140 request input for the DATA lines to be written by the program.

Line 150 increments the line number.

Line 160 prints out the yet to be new DATA line on screen. POSITION is important. It must synchronize with the next line.

Line 170 & 180 do the work. The POKE 842,13 tells the computer to read from the screen. POKE 842,12, in line 180, tells the computer to write to the screen.

Line 190 just makes the working of this program slower and a little easier to watch. TA-DA! A new line is written.

Line 200 sends it back around for more DATA and another new line.

Lines 210 thru 240 take our computer created DATA statements, read them and print the information in them on screen so you can verify that it works.

```
0 REM PGM1 by h. malavolti
1 REM Sourcerer's Apprentice
100 DIM C$(10):LINENO=950
110 ? "":POSITION 2,10
120 ? "ENTER NUMERIC DATA":INPUT A
130 ? "ENTER MORE NUMERIC
DATA":INPUT B
140 ? "ENTER STRING DATA (A WORD)":INPUT C$
150 LINENO=LINENO+10
```

```
160 POSITION 2,2:? LINENO:"DATA":A":":B":":C$:? "CONT"
170 POSITION 2,0:POKE 842,13:STOP
180 POKE 842,12
190 FOR DELAY-1 TO 600:NEXT DELAY:IF
LINENO>1030 THEN GOTO 210
200 GOTO 110
210 ? "":FOR COUNT-1 TO 4
220 READ A,B,C$
230 PRINT A,B,C$
240 NEXT COUNT
```

Now let's see how to DELETE lines that are excess baggage and cutting into free memory or slowing the program down. Once again you will be making the computer print something on the screen. Then the computer will be forced to read the information without you having to do the tedious work. CAUTION: SAVE TO DISK OR TAPE BEFORE RUNNING THIS PROGRAM!!

```
0 REM PGM2 by h. malavolti for
1 REM Sourcerer's Apprentice
5 LIST 100,200:FOR DELAY-1 TO
600:NEXT DELAY
10 ? "":POSITION 2,4
20 PRINT 100:PRINT 150:PRINT 200
30 PRINT "CONT"
40 POSITION 2,0
50 POKE 842,13:STOP
60 POKE 842,12
70 REM THE NEXT LINES WILL BE
DELETED
100 PRINT "DELETING....100"
150 PRINT "DELETING...150"
200 PRINT "100, 150, & 200 ARE
NOW DELETED!!!"
250 PRINT :PRINT :PRINT "NOW LIST
THE PROGRAM"
```

Until next time, save tedious programming work and have fun with LOCATION 842.

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## ATARIWRITER &amp; SPARTADOS

BY MILT INGRAM, PORTLAND ATARI CLUB US

Running ATARIWRITER PLUS with SPARTADOS on the XL/XE

AtariWriter Plus (AW+) is great, but... Every time I use it I have unkind thoughts about the people at Atari who seem to be determined to prevent me from using some of the features I like best about my 800XL. These include a 256K expanded memory and U.S. Doubler-equipped 1050 drives used with the SpartaDos operating system. I could have a 128K ramdisk to allow rapid switching between several files. I could use double density for added file capacity and time/date stamping of files, using the R-TIME 8 cartridge or the SpartaDos clock.

Unfortunately, none of this seemed possible because the AW+ was supplied on a copy protected "boot" disk. Then, along came the article by Carolyn Hoglin in the July '87 Magazine, explaining how she adapted the program to run with TOPDOS.

I determined that I would do the same for SpartaDos and include the ramdisk and time and date stamped files. I chose not to alter the original AW+ disk, but came up with a method which uses a batch file to perform the entire boot operation.

A disk swap is necessary, but everything else is automatic. Here's how it can be done. First, initialize a SpartaDos disk using X32D.DOS (SpartaDos version 3.2), and copy the SpartaDos files RD.COM and TDLINE.COM to it. Then, onto this same disk copy the AUTORUN.SYS file from the AW+ disk and rename it WRITE.COM. Finally, create the following STARTUP.BAT (batch) file:

TDLINE

RD D3: /E

## COPY WRITE.COM D3:

```
:  
: REMOVE BOOT DISK AND INSERT  
: ATARIWRITER. DISK IN DRIVE 1  
:  
PAUSE  
TD OFF  
BASIC OFF  
D3:WRITE
```

When this disk is booted, it performs the following operations:

TDLINE - sets a time and date clock from the R-TIME 8 cartridge. If you don't have the R-TIME 8 cartridge, use the commands TIME and DATE to initialize the clock and calendar.

RD D3: /E - sets up and formats a ramdisk in the top 128K of memory. Note: this leaves 128K available to run the 130XE version of AW+.

COPY WRITE.COM D3: - copies the program WRITE.COM (the AUTORUN.SYS loader program from the AW+ disk) to the ramdisk (D3:).

The next two lines are a prompt to replace the boot disk with the AW+ disk. PAUSE - prints a prompt to "PRESS ANY KEY TO CONTINUE" after swapping disks [Ed. Note: If you use commands TIME and DATE to initialize the clock and calendar, the batch loader process will stop so you can enter the time & date. If you remember to swap disks, you can do away with the prompts and PAUSE].

TD OFF - turns off the screen display of time and date, but leaves the internal clock active to time/date stamp disk files.

BASIC OFF - turns off BASIC. Don't have to hold down OPTION key during boot.

D3:WRITE - loads and runs the loader program from ramdisk. It then loads AW+ from drive 1.

PLOAD and SAVE will now work with either single or double density

# SOFTWARE REVIEW THE FIRST XLENT WORD PROCESSOR

Greg Pearce DAAUC (U.S.)

This is the first word processor that XLENT Software has put out. As the name suggests, it is a 40 column (40, not 38) word processor.

For those contemplating the purchase of a word processor, this is a quick review. I am not going to be able to list all the features (too many!) but I will touch on the highlights.

This is an icon/keyboard-driven word processor. Which means you can use a joystick or the keyboard to get to six basic functions. Using a joystick to move around the screen and access the printer, disk drive, etc., is somewhat of a novelty, but I still think the keyboard is quicker and easier.

There are many features that all word processors have and some that you wish all would have. These are the ones I will try to highlight. There are two different programs on the disk: one for the 400/800 and one for the XL/XE.

I have an XE, so many of the features I'll be mentioning will be on that program. First, for all those with XL/XE computers who have wondered at that funny, if not useless, key marked 'HELP', here is a program that makes good use of it. For the XE there are four HELP windows. They describe all the format, printer, and special character functions and keys very well. For example, while typing a letter you may want to do a certain function but cannot remember the keys. In the old word processors this would be the time to hunt down the owner's manual. But with this one, just push 'HELP' and window 1 and you have before you a list of the keys and their functions. Much faster. Pushing the 'SELECT' key brings up the special keys for the printer

driver which is built in and is EASY to program to your printer. With this driver you can also program in all the codes for special characters.

For the XE computers there is a nice bonus. A second window. You can load in two separate documents and edit each separately or move portions or all of the one to the other, as long as the programs are within the reaches of your memory (ie., not too long). This is very useful when you want to move large sections from one document to another.

All these edit functions, help windows, and printer functions will work in both windows. Also for the XE there is a printer spooler. This allows you to send a document to the printer and then while it is doing its business you can be typing or editing another letter.

This single feature sold me more than all the others. As it uses the computer's memory to store and send the data to the printer it does slow down everything quite a bit, but for the joy of not being shackled to your printer, this can be tolerated.

To test the system, I ran a little experiment. I loaded two large documents into each of the windows, put a large paragraph into the cut/paste buffer, looked at a Help screen and accessed the disk drive while the printer spooler was printing five copies of window 1. (I) It did very well, if slowly, until I accessed the disk drive. Then it printed some odd characters which had nothing to do with the letter it was printing. My conclusion regarding the spooler is, you can overload its capacity, especially if you use the disk drive a lot. But for an 8-bit computer it did very well and under normal operating

conditions, it will handle very well. I have been happy with it. Some of the features I don't have time to explain are: 1 - a very complete text formatter (commands to the printer which are imbedded in the text). This includes the ability to chain files and actually INSERT PICTURES into your text on the printer! 2 - It has a very good 80 column print preview. 3 - it will print double columns on most printers. 4 - It can be integrated with other programs such as BGRAPH for graphs, KOALA PAD and TYPESETTER for pictures, SYNFILE, SYNCALC and others for mail merging. And, 5 - many useful functions for formatting while typing - the ability to turn the word wrap on and off - find out how many words are in the document - how many sectors it will take to save the document...on and on, too numerous to list.

My conclusion is, after having used The First XLEnt Word Processor next to my other word processors, that this is a preferred program. Now it is the one I use the most and I would have no qualms recommending it to others as a good word processor to invest in.

## FIRST XLENT WORD PROCESSOR DISK UPDATE

The folks at XLEnt Software are now shipping the upgrade to their excellent and inexpensive First XLEnt Word Processor. Version 2.1 will make present owners happy and may excite those holding out.

Some of the modifications, as

mentioned by XLEnt Software, will include the ability to save system configurations - you no longer have to adjust colors and make personal adjustments every time you boot the system, dumping the cut/paste buffer directly to the printer and the ability to search and replace the return character.

To obtain your upgrade, just send the yellow 'upgrade' card you should have received with the manual. Lost the card? No sweat.

Just send either the master disk with \$3.00 or \$5.00 (US dollars) without the master disk, but list the serial number of the master disk in your response. Don't forget to include your return address and other necessary information when requesting your upgrade.

Reprinted from DATALINK US.

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disks. Double density disks will need to be formatted ahead of time.

The built-in FORMAT command works from the DUP.SYS file on the disk and produces only DOS 2.0 format. This will still work, as SpartaDOS 3.2 can read most Atari formats. You just lose the extra capacity. Also, the INDEX command will show the disk directory in DOS 2.0 format, without the time and date.

## FOR SALE

- 1 600 XL computer
- 1 1064 64K Upgrade
- 1 1050 Disk Drive
- 1 Gemini Printer with interface
- Plus lots of software - \$990.00
- Also 1 1050 Disk Drive with assorted software - \$350.00
- Phone H. Gal 042 56 4546 (Oak Flats)

|                          |                                  |                           |                          |
|--------------------------|----------------------------------|---------------------------|--------------------------|
| ANTIC VOL1 #3<br>JUL '82 | DANCIN BAS 007<br>VERTPM BAS 037 | ANTIC VOL3 #11<br>MAR '85 | ANTIC VOL4 #1<br>MAY '85 |
| KEYMASK BAS 028          | VERTPM SRC 038                   | DOS SYS 039               | DOS SYS 039              |
| KEYMASK SRC 017          | DLI1 BAS 004                     | DUP SYS 042               | VTABLE1 BAS 010          |
| MOVEIT BAS 025           | DLI2 BAS 006                     | MENU 017                  | MENU 017                 |
| MOVEIT SRC 013           | DLI3 BAS 013                     | HELP BAS 004              | AUTORUN SYS 002          |
| LINEDEL BAS 009          | AUTBOOT1SRC 017                  | AUTORUN SYS 002           | HELP BAS 004             |
| LINEDEL SRC 021          | AUTBOOT2SRC 007                  | DOC TXT 017               | DOC TXT 017              |
| TRANSLATBAS 034          | STARGAZEBAS 079                  | DECOEPS FNT 019           | AMAZE ACT 073            |
| BANNER BAS 014           | CONSERVEBAS 012                  | DECOGEM FNT 019           | AMAZE EXE 065            |
| SPIDER BAS 025           | *****                            | CONVERT LST 009           | ARENA BAS 057            |
| PACINVADBAS 050          | ANTIC VOL3 #9<br>JAN '85         | CUSTOM BAS 054            | ARSMAKE BAS 013          |
| BUBL SORTBAS 016         | DOS SYS 039                      | COMPUTERSET 009           | AUTODIALBAS 008          |
| BUBL SORTSRC 040         | DUP SYS 042                      | STYLISH SET 009           | BEER BAS 045             |
| GOODTIMESRC 025          | MENU 017                         | NECFIX LST 007            | FADERII BAS 038          |
| GOODTIMEBAS 009          | AUTORUN SYS 002                  | KWIKDUMPBAS 026           | FADERII EXE 008          |
| STRSRCH BAS 012          | HELP BAS 004                     | KWIKSAVEBAS 008           | FADERII M65 098          |
| STRSRCH SRC 017          | DOC TXT 017                      | LABLMAKR BAS 037          | FADERMODBAS 018          |
| GRAFIX1 BAS 007          | TYPOII BAS 009                   | ONELABELLST 002           | INFOMOD BAS 003          |
| GRAFIX2 SRC 010          | SEARCH LST 014                   | KEYCOMMDBAS 005           | INFONEW BAS 024          |
| GRAFIX3 LST 005          | QT BAS 097                       | KEYCOMMBCBAS 007          | LAZYLOADBAS 038          |
| MAILLISTBAS 096          | SCRAMBLEBAS 076                  | KEYDATA LST 006           | MIXADD LST 004           |
| VALENTINBAS 006          | WIDETEXTBAS 022                  | KEYCOMM ASM 020           | MIXDEMO DSP 007          |
| DISKDIR BAS 004          | WIDETEXTASM024                   | THIEF BAS 071             | MODEMIX BAS 077          |
| TEXTEDITBAS 004          | PEEKER BAS 005                   | ZURK BAS 069              | USERCALLBAS 008          |
| EXTENDIRSRC 021          | KOALA BAS 026                    | FONTMAKR BAS 109          | VTABLE2ABAS 008          |
| CONVTDIRBAS 015          | DISKIO BAS 064                   | *****                     | VTABLE2BBAS 011          |
| DLIST BAS 009            | INFOBITSASM 016                  | ANTIC VOL3 #12<br>APR '85 | VTABLE3 BAS 013          |
| TINYTEXTBAS 051          | TECHTIPSLST 006                  | DOS SYS 039               | *****                    |
| GRADING BAS 010          | *****                            | TAX1040 SC 115            | ANTIC VOL4 #2            |
| TRACE LST 035            | ANTIC VOL3 #10<br>FEB '85        | AUTORUN SYS 002           | JUN '85                  |
| WINDOW BAS 014           | DOS SYS 039                      | MENU 017                  | DOS SYS 039              |
| WINDOW SRC 008           | DUP SYS 042                      | DOC TXT 007               | DUP SYS 042              |
| *****                    | HOMEOANBAS 107                   | HELP BAS 004              | AUTORUN SYS 002          |
| ANTIC VOL2 #4<br>AUG '83 | CURRCAPEBAS 045                  | QUEENS8 BAS 028           | MENU 018                 |
| PRNTFONTBAS 025          | TAXFORMSSC 118                   | AGENT BAS 068             | HELP BAS 004             |
| ALPHBLOXBAS 049          | SYNDRUM BAS 042                  | SPEECHEDLST 073           | DOC TXT 017              |
| MOVE SRC 017             | BASYNTH BAS 014                  | PRICELESBAS 032           | TURBO1 LST 003           |
| SPRAY SRC 016            | SAMHANDLBAS 008                  | PATCHED BAS 013           | BIRD BAS 021             |
| OBJTOSTRBAS 022          | SAMHANDLBAS 008                  | SPLASH EXE 035            | COLORS ACT 010           |
| DISASSEMBAS 050          | SAMHANDLBAS 024                  | SPLASH1 BAS 012           | DISKIO ACT 015           |
| INVISECTSRC 007          | KOOKY BAS 120                    | SPLASH2 ACT 011           | DRAW3D ACT 018           |
| INVISECTBAS 012          | MUSFLASHBAS 044                  | SPLASH3 ACT 019           | GR78M ACT 019            |
| HIDDEN BAS 009           | REMMOVE LST 007                  | SPLASH4 ACT 026           | HOUSE V3D 004            |
| IDIOT BAS 010            | DOC TXT 016                      | MANEUVERBAS 091           | INKLLOOMBAS 067          |
| TELCHESSBAS 065          | HELP BAS 004                     | CRAZY8 BAS 071            | MENU3D ACT 011           |
| TMTSPEC BAS 005          | MENU 017                         | PBI M65 021               | MISC1 ACT 012            |
| ROOT BAS 004             | AUTORUN SYS 002                  | DIGITIZEBAS 022           |                          |
| MODE1 SRC 012            |                                  |                           |                          |

|                  |                  |                 |                 |
|------------------|------------------|-----------------|-----------------|
| PENCILS BAS 025  | OCONNELL PIC 024 | COARSE M65 021  | ANTIC VOL4 #8   |
| PIANO LGO 018    | TURNER PIC 056   | COARSE FIX 007  | DEC '85         |
| PRINTIO ACT 009  | TAYLOR PIC 033   | DOC TXT 017     | DOS SYS 039     |
| STICK3D ACT 016  | ALADIN PIC 061   | MENU 018        | DUP SYS 042     |
| TUTOR BAS 070    | GOMEZ FWA 069    | COPY130 M65 088 | AUTORUN SYS 002 |
| UPDATES ACT 013  | *****            | PEVB2C M65 026  | MENU 018        |
| VIEW3D ACT 014   | ANTIC VOL4 #4    | SURPRISEBAS 027 | HELP BAS 004    |
| VIEW3D EXE 174   | AUG '85          | *****           | DOC TXT 018     |
| TURBO2 BAS 006   | DOS SYS 039      | ANTIC VOL4 #6   | CRBUST BAS 004  |
| TURBO3 ASM 011   | DUP SYS 042      | OCT '85         | DUMP LOG 017    |
| -- SIDE B --     | AUTORUN SYS 002  | DOS SYS 039     | CRBUST M65 015  |
| DOS SYS 039      | HELP BAS 004     | DUP SYS 042     | DSKIOFIXBAS 013 |
| DUP SYS 042      | MENU 018         | MENU 018        | DSKIOMAKBAS 105 |
| AUTORUN SYS 002  | PROTERM BAS 154  | HELP BAS 004    | KEYMAC BAS 013  |
| DOC TXT 017      | VALIANT BAS 075  | DOC TXT 019     | VIEW BAS 011    |
| HELP BAS 004     | PROHANDLEXE 030  | ASYLUM BAS 041  | BOXIN BAS 030   |
| MENU 018         | BBSMENU ADM 004  | BANJO BAS 035   | EPROG M65 058   |
| GUP BAS 058      | ATARTOONBAS 069  | BREATHE BAS 035 | EPROG OBJ 008   |
| GUP DMO 041      | MINI1030BAS 009  | FINESCRLEXE 003 | GIGI PIC 019    |
| GUP EXE 016      | DLMMASTEREXE 068 | FINESCRLM65 026 | CHEERIO BAS 002 |
| GUP ASM 149      | AUTO1030SYS 001  | GR3DLOADBAS 012 | LES PIC 041     |
| LAURA 011        | KNIGHT SHO 024   | GRAPH3D BAS 087 | NAT PIC 036     |
| MUSIC BAS 125    | POKER SHO 027    | LEMONADEBAS 041 | JULIANNEPIC 034 |
| PALETTE BAS 055  | ATARTOONSYS 004  | SINEWAVEBAS 007 | PATRICK PIC 048 |
| PALETTE ASM 048  | DLMMASTERACT 059 | GUP ASM 150     | MICHAEL PIC 033 |
| ROUNDUP BAS 081  | STAR LOG 002     | *****           | CHARLES PIC 053 |
| --               | GRAPHIO BAS 008  | ANTIC VOL4 #7   | EVE PIC 041     |
| ANTIC VOL4 #3    | DOC TXT 020      | NOV '85         | *****           |
| JUL '85          | *****            | DOS SYS 039     | ANTIC VOL4 #9   |
| DOS SYS 039      | ANTIC VOL4 #5    | DUP SYS 042     | JAN '8          |
| DUP SYS 042      | SEP '85          | AUTORUN SYS 002 | 6DOS SYS 039    |
| AUTORUN.SYS 002  | DOS SYS 039      | MENU 018        | DUP SYS 042     |
| HELP BAS 004     | DUP SYS 042      | HELP BAS 004    | AUTORUN SYS 002 |
| MENU 017         | HELP BAS 004     | DOC TXT 019     | MENU 018        |
| DOC TXT 023      | CRICKETS BAS 093 | CONVERT BAS 078 | HELP BAS 004    |
| SLIDE BAS 025    | REFLECT BAS 010  | CODEWRITM65 065 | DOC TXT 021     |
| CRYPTO BAS 027   | SOUND BAS 035    | CODEWRITEXE 007 | ACFONT C 052    |
| DARKSTARACT 019  | SOUND16 BAS 024  | VAMPRAT BAS 055 | BINGO BAS 012   |
| DARKSTAR BAS 021 | TICFLIP BAS 017  | FASTMOVEM65 054 | CALENDARBAS 074 |
| DARKSTAREXE 026  | TIMER1 BAS 014   | FASTMOVEEXE 002 | COMPUTERFNT 009 |
| GUESSIT BAS 059  | TIMER3 BAS 014   | MINE BAS 015    | CRS BAS 005     |
| MGCONST BAS 082  | TIMER5 BAS 011   | THUNDER BAS 006 | DESK3 ACC 052   |
| MINIGOLFBAS 088  | COARSE EXE 003   | SWITCHERBAS 019 | DISOLV1 BAS 062 |
| OVERFLOWBAS 036  | COPY130 EXE 011  | ROBOTS BAS 137  | DISOLV2 BAS 073 |
| SG10FIX LST 006  | QUEENS8 EXE 026  | DUNGEON CRT 041 | DUNGEONSBAS 074 |
| STARVENTBAS 037  | REVB2C EXE 002   | DUNJIN DAT 021  | NOOR BAS 002    |
| -- SIDE B --     | TIMER2 ASM 021   | SUT2P LST 014   | SUMMERS LST 003 |
| DOS SYS 039      | TIMER4 ASM 019   | TYPO1ICGBAS 023 | SYSANTA BAS 072 |
| DUP SYS 042      | QUEENS8 ACT 016  | ROBOHELP 004    | WIREBALLBAS 070 |
| SEDGWICKEXE 316  | AUTORUN SYS 002  | ROBO TXT 034    |                 |

|                 |                 |                  |                 |
|-----------------|-----------------|------------------|-----------------|
| ANTIC VOL4 #10  | DAHLIAS BAS 027 | AUTORUN SYS 002  | JULIAN BAS 053  |
| FEB '86         | HEAR1 BAS 007   | HELP BAS 005     | MATHART1BAS 040 |
| DOS SYS 039     | HEAR2 BAS 005   | MENU 018         | MATHART2BAS 041 |
| DUP SYS 042     | HEAR3 BAS 008   | PORT TXT 028     | NEWOWN4 BAS 024 |
| AUTORUN SYS 002 | HEAR4 BAS 007   | DOC TXT 019      | RECIPE BAS 166  |
| FRAC3D C 089    | LANDER BAS 093  | FRAC3D PRG 084   | WEATHER BAS 066 |
| TAX1040 SC 122  | BITZ BAS 034    | *****            | -- SIDE B --    |
| VDISHOW BAS 039 | BITZ M65 021    | ANTIC VOL5 #1    | DOS SYS 039     |
| SOFTWEARBAS 022 | LIAR BAS 012    | MAY '85          | DUP SYS 042     |
| WARRIOR BAS 089 | LINKLETRLST 004 | DOS SYS 039      | AUTORUN SYS 002 |
| MCP M65 128     | STIKWRITBAS 040 | DUP SYS 042      | PORT TXT 028    |
| MCP EXE 007     | MYHELLO BAS 016 | AUTORUN SYS 002  | DOC TXT 019     |
| GO EXE 001      | -- SIDE B --    | MENU 018         | HELP BAS 005    |
| MODIFY OBJ 003  | DOS SYS 039     | DOC TXT 019      | MENU 018        |
| RAMDISK COM 005 | DUP SYS 042     | HELP BAS 004     | BIORTHM BAS 092 |
| KEYS MIC 062    | AUTORUN SYS 002 | MWCALC BAS 046   | FILEIO C 049    |
| CGP220 BAS 040  | MENU 018        | MYGARDENBAS 103  | FILEIO PRG 041  |
| TINYLISTBAS 017 | HELP BAS 005    | DADS1984GAR 006  | *****           |
| PLOTTER1BAS 006 | DOC TXT 050     | JOES1984GAR 006  | ANTIC VOL5 #3   |
| PLOTTER3BAS 006 | MIDI PRG 112    | POSTRMKBAS 029   | JUL '86         |
| PLOTTER4BAS 009 | SMIDI S 005     | NEWOWN3 BAS 038  | DOS SYS 039     |
| PLOTTER2BAS 006 | MIDI C 029      | KEYJOY BAS 004   | DUP SYS 042     |
| -- SIDE B --    | HSOUND C 013    | KEYJOY M65 015   | AUTORUN SYS 002 |
| DOS SYS 039     | SHSOUND S 009   | ROCKSLDE BAS 063 | MENU 018        |
| DUP SYS 042     | HIPOX1 O 005    | HEXCON BAS 023   | DOC TXT 019     |
| AUTORUN SYS 002 | HIPOX2 C 026    | ETHERTON LST 004 | HELP BAS 004    |
| MENU 018        | MODERNE LOG 018 | -- SIDE B --     | ARTMAKERBAS 035 |
| HELP BAS 004    | HSOUND PRG 250  | DOS SYS 039      | BUILD BAS 017   |
| DOC TXT 040     | PORT TXT 028    | DUP SYS 042      | COMPDECKBAS 050 |
| COUNTRY SHO 027 | *****           | AUTORUN SYS 002  | DECKLOADBAS 028 |
| MARTIAL SHO 031 | ANTIC VOL4 #12  | HELP BAS 005     | DESERT BAS 067  |
| FIREWRKSSHO 150 | APR '86         | PORT TXT 028     | NEWOWN5 BAS 029 |
| WIZARD SHO 085  | DOS SYS 039     | DOC TXT 019      | QUARTER BAS 008 |
| COUNTRY FNT 009 | DUP SYS 042     | CNTLIN PAS 014   | RLE EXE 042     |
| WIZARD FNT 009  | AUTORUN SYS 002 | RADIO BAS 014    | RLEMAKE BAS 032 |
| HELPTOONSHO 026 | MENU 018        | JOYSTICKC 026    | SHUFFLE BAS 015 |
| HELPTOONFNT 009 | DOC TXT 019     | PONG C 082       | TITLE PIC 029   |
| CLASS SHO 081   | ANIMAL BAS 036  | PONG PRG 057     | ROYAL DCK 185   |
| ATARTOONBAS 069 | FRACTAL BAS 062 | JOYSTICKPRG 023  | -- SIDE B --    |
| ATARTOONSYS 004 | ZOOM 062        | MENU 018         | DOS SYS 039     |
| *****           | JULIA 062       | *****            | DUP SYS 042     |
| ANTIC VOL4 #11  | NEWOWN2 BAS 014 | ANTIC VOL5 #2    | AUTORUN SYS 002 |
| MAR '86         | JULIA DAT 001   | JUN '86          | PORT TXT 028    |
| DOS SYS 039     | ZOOM DAT 001    | DOS SYS 039      | DOC TXT 019     |
| DUP SYS 042     | LIFE BAS 018    | DUP SYS 042      | HELP BAS 005    |
| AUTORUN SYS 002 | TTT BAS 096     | AUTORUN SYS 002  | MENU 018        |
| MENU 018        | VSAVER LST 006  | MENU 018         | GRAFCON C 208   |
| HELP BAS 004    | HELP BAS 004    | DOC TXT 01       | GRAFCON PRG 106 |
| DOC TXT 018     | -- SIDE B --    | 5HELP BAS 004    | SPOTS DCK 185   |
| CALFIX LST 004  | DOS SYS 039     | BOMBSQU BAS 116  | -               |
|                 | DUP SYS 042     | DECIDE BAS 079 - |                 |

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|------------------|------------------|------------------|------------------|
| ANTIC VOL5 #4    | NEWOWN6 BAS 014  | ANTIC VOL5 #7    | -- SIDE B --     |
| AUG '86          | LINKLINEEXE 015  | NOV '86          | DOS SYS 039      |
| DOS SYS 039      | WEFAX 1 246      | DOS SYS 039      | DUP SYS 042      |
| DUP SYS 042      | WX BAS 061       | DUP SYS 042      | AUTORUN SYS 002  |
| AUTORUN SYS 002  | -- SIDE B --     | AUTORUN SYS 002  | DOC TXT 026      |
| MENU 018         | DOS SYS 039      | MENU 019         | HELP BAS 005     |
| DOC TXT 017      | DUP SYS 042      | HELP BAS 004     | LINKLINEPRG 039  |
| HELP BAS 004     | AUTORUN SYS 002  | LINKLINEEXE 015  | MENU 019         |
| BUMBLBEE BAS 041 | MENU 018         | DOC TXT 020      | PORT TXT 029     |
| CHARFONT EXE 055 | HELP BAS 005     | TYPOII LST 009   | TYPOPOST BAS 017 |
| FILEMSTR BAS 096 | DOC TXT 023      | AUTOTYPOLST 026  | DEDUCT BAS 050   |
| LINKLINE EXE 015 | PORT TXT 029     | NEWOWN7 BAS 016  | STEPPER C 074    |
| LINKLINE M65 005 | LINKLINE PRG 039 | CLIFF BAS 050    | HOLIDAY PC1 071  |
| LINKA M65 081    | STFAX S 175      | CARFINANBAS 041  | *****            |
| BLOCK FNT 009    | STFAX TOS 022    | BUDGETDBBAS 087  | ANTIC VOL5 #9    |
| OUTLINE FNT 009  | SEASURF PI3 257  | VGRAPH BAS 086   | JAN '87          |
| GOTHIC FNT 009   | *****            | CAPS PRF 001     | DOS SYS 039      |
| ROMAN FNT 009    | ANTIC VOL5 #6    | COATS PRF 001    | DUP SYS 042      |
| SCRIPT FNT 009   | OCT '86          | SCARFS PRF 001   | AUTORUN SYS 002  |
| DSKINSRT BAS 030 | DOS SYS 039      | -- SIDE B --     | MENU 018         |
| CHARFONT BAS134  | DUP SYS 042      | DOS SYS 039      | HELP BAS 004     |
| -- SIDE B --     | AUTORUN SYS 002  | DUP SYS 042      | DOC TXT 022      |
| DOS SYS 039      | DOC TXT 021      | AUTORUN SYS 002  | TYPEALK TLK 013  |
| DUP SYS 042      | LINKLINE EXE 015 | DOC TXT 023      | TYPOII LST 009   |
| AUTORUN SYS 002  | MENU 018         | HELP BAS 005     | DOORPRIZ BAS 027 |
| PORT TXT 028     | TYPOII LST 009   | LINKLINEPRG 039  | DOORPRIZ TLK 032 |
| DOC TXT 019      | CANON BAS 006    | MENU 019         | MATH BAS 114     |
| HELP BAS 005     | CASTLE BAS 077   | PORT TXT 029     | MATH TLK 136     |
| MENU 018         | RAINBOW BAS 005  | TYPOPOST BAS 017 | REBOUND BAS 128  |
| LINKLINEC 056    | SIDEWIND BAS 016 | HANGMAN BAS 051  | MENU BAS 019     |
| MEDIUM C 027     | SNAKE BAS 099    | *****            | NEWOWN10 BAS 058 |
| RLESEE C 073     | STRETCH ACT 020  | ANTIC VOL5 #8    | LINKLINE EXE 015 |
| LINKLINEPRG 039  | STRETCH EXE 027  | DEC '86          | -- SIDE B --     |
| RLESEE PRG 050   | VISIONS BAS 004  | DOS SYS 039      | DOS SYS 039      |
| *****            | HELP BAS 004     | DUP SYS 042      | DUP SYS 042      |
| ANTIC VOL5 #5    | BEGOOD PI2 257   | AUTORUN SYS 002  | AUTORUN SYS 002  |
| SEP '86          | -- SIDE B --     | DOC TXT 020      | MENU 018         |
| DOS SYS 039      | DOS SYS 039      | HELP BAS 004     | HELP BAS 006     |
| DUP SYS 042      | DUP SYS 042      | LINKLINEEXE 015  | LINKLINEPRG 039  |
| AUTORUN SYS 002  | AUTORUN SYS 002  | MENU 019         | DOC TXT 026      |
| MENU 018         | DOC TXT 024      | TYPOII LST 009   | PORT TXT 029     |
| HELP BAS 004     | HELP BAS 005     | GOWEST BAS 035   | TYPOPOST BAS 017 |
| DOC TXT 020      | MENU 018         | NEWOWN8ABAS 011  | TALKTYPES 061    |
| FAX M65 003      | PORT TXT 029     | NEWOWN8BBAS 009  | STARTREKBAS 178  |
| FAXA M65 108     | LINKLINE PRG 039 | NEWOWN8CBAS 030  | ROULETTEEXE 09   |
| WESIM BAS 016    | RESCUE PI2 257   | RSMAP BAS 060    | IROULETTEDOC 011 |
| WETST BAS 006    | CHANGEMS BAS 007 | NUCWASTEBAS 049  | TALKTYPETOS 010  |
| FAX EXE 022      | MOUSEDIT BAS 064 | SPELLB BAS 088   | HOLIDAY PC1 071  |
| TRACER M65 054   | STCASTLE BAS 090 | STEPPER BAS 051  | *****            |
| TRACER EXE 103   | TYPOST BAS 017   | SUB EXE 047      | *****            |

|                  |               |         |                  |                  |         |
|------------------|---------------|---------|------------------|------------------|---------|
| ANTIC VOL5 #12   | HOP           | BAS 021 | STINGRAYBAS 018  | NT1              | TXT 150 |
| APR '87          | AROGUE        | BAS 125 | GOLFHDPCBAS 038  | ANT2             | TXT 125 |
| DOS SYS 039      | AROGUE        | FNT 009 | MAIL LG0 027     | NETJAN           | SC 049  |
| DUP SYS 042      | NEWOWN14BAS   | 036     | VERBOT BAS 039   | NETJULY          | SC 048  |
| AUTORUN SYS 002  | SOUNDMENBAS   | 030     | -- SIDE B --     | GFACOSINBAS      | 010     |
| MENU 018         | WORDFUN       | 166     | DOS SYS 039      | STCOSINEBAS      | 008     |
| HELP BAS 004     | WORDFONT      | 011     | DUP SYS 042      | .....            |         |
| DOC TXT 021      | WORDFUN       | SYS 004 | AUTORUN SYS 002  | ANTIC VOL6 #4    |         |
| LINKLINE EXE 015 | WFUN          | TXT 011 | MENU 018         | AUG '87          |         |
| TYPOII LST 009   | -- SIDE B --  |         | HELP BAS 005     | DOS SYS 039      |         |
| BREAK LST 003    | DOS           | SYS 039 | LINKLINEPRG 039  | DUP SYS 042      |         |
| MUSICIAN BAS 016 | DUP           | SYS 042 | DOC TXT 027      | AUTORUN SYS 002  |         |
| MUSICIAN M65 044 | AUTORUN       | SYS 002 | PORT TXT 029     | MENU 018         |         |
| SLOWLISTEXE 001  | MENU          | 018     | TYPOPOST BAS 017 | HELP BAS 004     |         |
| SLOWLISTM65 016  | HELP          | BAS 005 | GEMSHELLC 012    | DOC TXT 022      |         |
| NEWOWN13BAS 018  | LINKLINEPRG   | 039     | MOTHER PC1 215   | LINKLINE EXE 015 |         |
| TAXMAN BAS 044   | DOC           | TXT 023 | .....            | TYPOII LST 009   |         |
| TAX1986 SC 112   | PORT          | TXT 029 | ANTIC VOL6 #3    | TITLE BAS 014    |         |
| PSLABELSBAS 097  | TYPOPOST      | BAS 017 | JUL '85          | MAKEAUTO BAS 014 |         |
| MODERN FNT 009   | TOWERS        | BAS 081 | DOS SYS 039      | TOPDOT1 LST 028  |         |
| FANCY FNT 009    | WFPZL1        | 018 023 | DUP SYS 042      | BOTMDOT1 LST 028 |         |
| OUTLINE FNT 009  | WFPZL2        | 000 024 | AUTORUN SYS 002  | SG10LOAD LST 005 |         |
| ROMAN FNT 009    | WFPZL3        | 000 023 | MENU 018         | OKILOAD LST 005  |         |
| BACKTALKFNT 009  | WFPZL4        | 000 023 | HELP BAS 004     | G10XLOAD LST 005 |         |
| STOP FNT 009     | WFPZL5        | 000 023 | DOC TXT 021      | FX80LOAD LST 005 |         |
| -- SIDE B --     | WFPZL6        | 000 023 | LINKLINE EXE 015 | TAPELESS BAS 046 |         |
| DOS SYS 039      | WFPZL7        | 000 024 | TYPOII LST 009   | POLYMOVE BAS 039 |         |
| DUP SYS 042      | WFPZL8        | 000 023 | AFTIMAGE BAS 034 | LINKBAS EXE 067  |         |
| AUTORUN SYS 002  | WFPZL9        | 000 023 | ARTCONVR EXE 026 | DIMDAVE BAS 045  |         |
| MENU 018         | WFPZL10000    | 023     | CHICKEN BAS 065  | TEMPCONVBAS 012  |         |
| HELP BAS 005     | WFPZL11000    | 023     | GHOST BAS 031    | CHAREDITBAS 096  |         |
| LINKLINEPRG 039  | WFPZL12000    | 022     | GHOST FNT 009    | LINKBAS BAS 032  |         |
| DOC TXT 023      | WFPZL13000    | 013     | RWB BAS 048      | CHAREDIT EXE 102 |         |
| PORT TXT 029     | HELP          | 064     | COLUMN80 SET 009 | -- SIDE B --     |         |
| TYPOPOST BAS 017 | .....         |         | EASY80 BAS 034   | DOS SYS 039      |         |
| LIMIT C 058      | ANTIC VOL6 #2 |         | HOUSE02 LST 006  | DUP SYS 042      |         |
| LIMIT PRG 038    | JUN '86       |         | HOUSE03 LST 009  | AUTORUN SYS 002  |         |
| .....            | DOS           | SYS 039 | ARTCONVRM65 245  | MENU 018         |         |
| ANTIC VOL6 #1    | DUP           | SYS 042 | HOUSE BAS 021    | HELP BAS 007     |         |
| MAY '86          | AUTORUN       | SYS 002 | -- SIDE B --     | LINKLINE PRG 039 |         |
| DOS SYS 039      | MENU          | 018     | DOS SYS 039      | DOC TXT 022      |         |
| DUP SYS 042      | HELP          | BAS 004 | DUP SYS 042      | PORT TXT 029     |         |
| AUTORUN SYS 002  | DOC           | TXT 020 | AUTORUN SYS 002  | TYPOPOST BAS 017 |         |
| MENU 018         | LINKLINEEXE   | 015     | MENU 018         | REBOUNDXBAS 170  |         |
| HELP BAS 005     | TYPOII        | LST 009 | HELP BAS 005     | HAIKU BAS 068    |         |
| DOC TXT 020      | CITADEL       | BAS 037 | LINKLINE PRG 039 | JAPAN FNT 009    |         |
| LINKLINE EXE 015 | HAUNT         | BAS 05  | DOC TXT 025      | ANTICDB EXE 161  |         |
| TYPOII LST 009   | 7HAUNT01      | BAS 012 | PORT TXT 029     | DETAILS TXT 011  |         |
| SOUNDST BAS 013  | INFORMEREXE   | 003     | TYPOPOST BAS 017 | ALFISH BAS 072   |         |
| POKER BAS 089    | INFORMERM65   | 046     |                  |                  |         |

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| ANTIC VOL6 #5    | PLAYDEM M65 007  | DOS               | SYS 039 | ANTICPUB TXT 061 |
| SEP '86          | PRESQUIZ BAS 035 | DUP               | SYS 042 | *****            |
| DOS SYS 039      | PROMPTER BAS 070 | AUTORUN SYS 002   |         | ANTIC VOL6 #9    |
| DUP SYS 042      | RESISTOR BAS 096 | MENU 018          |         | JAN '88          |
| AUTORUN SYS 002  | VBIRD BAS 009    | HELP BAS 005      |         | DOS SYS 039      |
| MENU 018         | FBPRED BAS 123   | LINKLINEPRG 039   |         | DUP SYS 042      |
| HELP BAS 004     | ANTICDB TXT 042  | DOC TXT 025       |         | AUTORUN SYS 002  |
| DOC TXT 025      | -- SIDE B --     | PORT TXT 029      |         | MENU 018         |
| LINKLINE EXE 015 | DOS SYS 039      | TYPOST BAS 017    |         | HELP BAS 007     |
| TYPOII LST 009   | DUP SYS 042      | GFATIME BAS 022   |         | DOC TXT 020      |
| APR BAS 089      | AUTORUN SYS 002  | STTIME BAS 009    |         | LINKLINE EXE 015 |
| DESKCALC BAS 062 | MENU 018         | ANTISTARPI1 257   |         | TYPOII LST 009   |
| DOOMSTAR BAS 104 | HELP BAS 008     | *****             |         | SSIJ6 DRV 001    |
| BIRDEGGS BAS 060 | LINKLINEPRG 039  | ANTIC VOL6 #8     |         | SSIJ8 DRV 001    |
| HOUSE04 BAS 033  | DOC TXT 023      | DEC '87           |         | MAILER LST 009   |
| ART BAS 004      | PORT TXT 029     | DOS SYS 039       |         | TOPSHELF BAS 130 |
| MAILIST BAS 055  | TYPOST BAS 017   | DUP SYS 042       |         | AWRITFIX BAS 005 |
| PRTMAKE BAS 008  | PSC EXE 045      | AUTORUN SYS 002   |         | BCOPY EXE 025    |
| AUTOAPR SYS 002  | PROMPT PRG 094   | MENU 018          |         | BOUNCE BAS 019   |
| -- SIDE B --     | PSC DOC 043      | HELP BAS 004      |         | PEGBOARD BAS 024 |
| DOS SYS 039      | PROMPT BAS 042   | DOC TXT 022       |         | ROLLOUT BAS 033  |
| DUP SYS 042      | DICTION 1 005    | LINKLINEEXE 015   |         | BIGFOOT BAS 011  |
| AUTORUN SYS 002  | SPELL M65 112    | TYPOII LST 009    |         | HANDCAR BAS 009  |
| MENU 018         | SPELL SUB 095    | DUNGEON BAS 149   |         | SUNSET BAS 007   |
| HELP BAS 006     | SPELL DAT 024    | ICONVERTBAS 060   |         | SSIJOY6 M65 012  |
| LINKLINEPRG 039  | *****            | SCIHELP BAS 098   |         | BCOPY TXT 027    |
| DOC TXT 022      | ANTIC VOL6 #7    | ENVELOPEBAS 055   |         | SSIJOY8 M65 021  |
| PORT TXT 029     | NOV '87          | PSLMOD LST 021    |         | SSIJOY6 BAS 008  |
| TYPOST BAS 017   | DOS SYS 039      | MORSE8 BAS 016    |         | SIJOY8 BAS 011   |
| MAX BAS 111      | DUP SYS 042      | HOWDY PIC 06      |         | BIO BAS 090      |
| STRIVIA BAS 085  | AUTORUN SYS 002  | 2NADAV PIC 062    |         | -- SIDE B --     |
| MAX TXT 041      | MENU 018         | -- SIDE B --      |         | DOS SYS 039      |
| STRIVIA PRG 149  | HELP BAS 005     | DOS SYS 039       |         | DUP SYS 042      |
| STRIVIA QIZ 007  | DOC TXT 022      | DUP SYS 042       |         | AUTORUN SYS 002  |
| *****            | LINKLINEEXE 015  | AUTORUN SYS 002   |         | MENU 018         |
| ANTIC VOL6 #6    | TYPOII LST 009   | MENU 018          |         | HELP BAS 005     |
| OCT '87          | BIBWRITEBAS 089  | HELP BAS 008      |         | LINKLINE PRG 039 |
| DOS SYS 039      | TRAVEL BAS 065   | LINKLINEPRG 039   |         | DOC TXT 023      |
| DUP SYS 042      | WYSIWYG BAS 094  | DOC TXT 026       |         | PORT TXT 029     |
| AUTORUN SYS 002  | PROJPLNRBAS 154  | PORT TXT 029      |         | PARTA BAS 030    |
| MENU 018         | HOTCOLD BAS 033  | TYPOST BAS 01     |         | PARTA PRG 067    |
| HELP BAS 008     | GALLEONSEXE 036  | 7ANTICPUB BAS 124 |         | PARTB BAS 007    |
| DOC TXT 020      | WEST MAP 006     | GFAMORSE BAS 031  |         |                  |
| LINKLINEEXE 015  | GALLEONSTXT 025  | FRAME FIT 023     |         |                  |
| TYPOII LST 009   | FANCY FNT 009    | TEXAS FIT 023     |         |                  |
| BALANCE BAS 049  | JUDICIALFNT 009  | LOMBARDYFIT 015   |         |                  |
| FLASH BAS 035    | MODERN FNT 009   | HEBREW FIT 007    |         |                  |
| GRAPHDEMBAS 019  | STOP FNT 009     | TAVERN FIT 014    |         |                  |
| GRAPHDLIM65 008  | BACKTALKFNT 009  | SMALL FIT 004     |         |                  |
| PLAYDEM BAS 014  | -- SIDE B        | GFAMORSE PRG 090  |         |                  |

of Inside Info. No 34 due to lack of space and general confusion - see Garry's article in Inside Info No 34. Watch for other language versions in future editions.

1 -----  
2 REM The Antic 3 Environment  
3 REM By  
4 REM Gary Spiteri  
5 REM Completed on 18/9/87  
6 REM { 1987 '  
7 -----  
20 CHBAS-57344:RATE-1607  
30 CHSET-(PEEK(108)-38)\*256:LET  
    NEW\_DL\_ADR-CHSET+1024  
40 POKE 559,0  
50 DL-DPEEK(580)  
60 FOR I-0 TO 29  
70 READ A  
80 POKE DL,I,A  
90 NEXT I  
100 DATA 0,87,84,188  
110 DATA 3,3,3,3,3,3,3,3,3,3,3,  
    3,3,3,3,3,3,3,3,3,2  
120 DATA 65,32,188  
130 MOVE CHBAS,CHSET,1024:MOVE  
    DL,NEW\_DL\_ADR,30  
140 POKE 756,CHSET/256:POKE  
    710,116:POKE 712,116:POKE  
    708,12:POKE 82,0  
150 ? ") TURBO BASIC version  
    1.05+ { 1987 '":? " WITH  
    ANTIC 3 CHARACTER SET.":?  
152 ? "TO RESTORE ENVIRONMENT  
    TYPE:"  
153 ? "MOVE \$":HEX\$(NEW\_DL\_ADR);  
    ",DPEEK(580),30:  
POKE 756,"CHSET/256  
160 NCHAR-128  
170 RPLC-0  
180 EXEC LOAD\_SET  
185 EXEC FLASHING\_CURSOR  
186 -----  
187 REM FLASHING CURSOR RATE.  
POKE WITH YOUR OWN PREFERENCE, 0  
FAASTEST, 255 SLOWEST  
188 POKE RATE,20  
189 -----  
190 POKE \$D01F,4:POKE 559,34:END  
200 PROC LOAD\_SET  
203 RESTORE 1000  
205 FOR I-1 TO NCHAR  
210 FOR J-0 TO 7  
220 READ A

230 POKE CHSET+8\* RPLC+J,A  
240 NEXT J  
250 RPLC-RPLC+1  
260 NEXT I  
270 ENDPROC  
300 PROC FLASHING\_CURSOR  
305 RESTORE 320  
310 FOR X-1536 TO 1614:READ  
    A:POKE X,A:NEXT X:X-USR(1536)  
320 DATA 104,185,8,41,1,240,14,185,12,  
    141,43,8,185,13,141,44,8,188,1,133  
330 DATA 9,188,38,133,12,188,8,133,13,  
    182,8,180,45,189,7,32,82,228,88,32  
340 DATA 29,8,78,77,180,185,87,208,  
    28,208,78,8,208,21,180,0,185,93,81,84  
350 DATA 41,127,208,8,177,84,73,128,  
    145,84,188,32,141,78,8,78,98,228,32  
360 ENDPROC  
990 -----  
995 REM CHARACTER SET DATA  
996 -----  
1000 DATA 0,0,0,0,0,0,0  
1001 DATA 0,24,24,24,24,24,24,0,24  
1002 DATA 0,102,102,0,0,0,0  
1003 DATA 0,0,102,255,102,102,255,102  
1004 DATA 0,24,82,98,80,8,124,24  
1005 DATA 0,0,102,108,24,48,102,70  
1006 DATA 0,58,108,58,112,222,204,118  
1007 DATA 0,24,24,48,0,0,0,0  
1008 DATA 14,24,24,24,24,24,24,14  
1009 DATA 112,24,24,24,24,24,24,112  
1010 DATA 0,0,102,80,255,80,102,0  
1011 DATA 0,0,24,24,128,24,24,0  
1012 DATA 0,0,0,0,24,24,48  
1013 DATA 0,0,0,0,128,0,0,0  
1014 DATA 0,0,0,0,0,24,24  
1015 DATA 0,0,8,12,24,48,98,64  
1016 DATA 0,124,198,208,254,  
    230,198,124  
1017 DATA 0,24,58,24,24,24,24,24,80  
1018 DATA 0,124,198,12,24,48,98,254  
1019 DATA 0,128,12,24,12,8,198,124  
1020 DATA 0,12,28,80,108,204,254,12  
1021 DATA  
    0,254,192,252,8,8,198,124  
1022 DATA  
    0,124,192,252,198,198,198,124  
1023 DATA 0,254,198,12,24,48,48,48  
1024 DATA  
    0,124,198,124,198,198,198,124

1025 DATA 0,124,198,198,128,8,198,124  
 1026 DATA 0,0,24,24,0,24,24,0  
 1027 DATA 0,0,0,24,0,24,24,48  
 1028 DATA 0,8,12,24,48,24,12,8  
 1029 DATA 0,0,0,128,0,0,128,0  
 1030 DATA 0,98,48,24,12,24,48,98  
 1031 DATA 0,80,102,8,12,24,0,24  
 1032 DATA  
     0,124,198,222,214,222,192,128  
 1033 DATA  
     0,58,124,198,198,254,198,198  
 1034 DATA  
     0,252,102,102,124,102,102,252  
 1035 DATA  
     0,124,198,192,192,192,198,124  
 1036 DATA  
     0,248,108,102,102,102,108,248  
 1037 DATA  
     0,254,102,98,120,98,102,254  
 1038 DATA 0,254,102,98,120,98,98,240  
 1039 DATA  
     0,128,198,192,208,198,198,128  
 1040 DATA  
     0,198,198,198,254,198,198,198  
 1041 DATA 0,120,48,48,48,48,48,120  
 1042 DATA  
     0,30,12,12,12,12,204,120  
 1043 DATA  
     0,198,204,218,240,218,204,198  
 1044 DATA  
     0,240,98,98,98,98,102,254  
 1045 DATA  
     0,198,238,254,214,198,198,198  
 1046 DATA  
     0,198,230,248,222,208,198,198  
 1047 DATA  
     0,124,198,198,198,198,198,124  
 1048 DATA  
     0,252,102,102,124,98,98,240  
 1049 DATA  
     0,124,198,198,198,198,204,118  
 1050 DATA  
     0,252,102,102,124,102,102,230  
 1051 DATA  
     0,128,198,192,124,8,198,252  
 1052 DATA  
     0,252,180,48,48,48,48,120  
 1053 DATA  
     0,198,198,198,198,198,198,124  
 1054 DATA 0,198,198,198,198,198,198,108,58  
 1055 DATA  
     0,198,198,198,214,254,238,198  
 1056 DATA  
     0,198,198,108,58,108,198,198  
 1057 DATA 0,102,102,102,80,24,24,24  
 1058 DATA  
     0,254,208,28,58,112,230,254  
 1059 DATA 0,30,24,24,24,24,24,30  
 1060 DATA 0,0,192,98,48,24,12,8  
 1061 DATA 0,120,24,24,24,24,24,120  
 1062 DATA 0,18,58,108,198,0,0,0  
 1063 DATA 0,0,0,0,0,0,254  
 1064 DATA 4,80,39,49,7,225,57,33  
 1065 DATA  
     80,102,195,153,153,128,153,255  
 1066 DATA  
     254,131,153,131,153,153,131,254  
 1067 DATA  
     128,195,153,159,159,153,195,128  
 1068 DATA  
     252,134,147,153,153,147,134,252  
 1069 DATA  
     255,128,159,130,158,159,128,255  
 1070 DATA  
     255,128,159,130,158,144,144,240  
 1071 DATA  
     128,195,153,158,145,153,195,128  
 1072 DATA  
     255,153,153,128,153,153,153,255  
 1073 DATA  
     128,88,102,38,38,102,88,128  
 1074 DATA 15,9,9,9,233,153,195,128  
 1075 DATA  
     239,153,147,134,134,144,147,153,239  
 1076 DATA  
     240,144,144,144,144,159,129,255  
 1077 DATA  
     247,158,138,128,148,158,148,247  
 1078 DATA  
     247,153,137,129,129,145,153,239  
 1079 DATA  
     128,195,153,153,153,153,195,128  
 1080 DATA  
     254,131,153,153,131,158,144,240  
 1081 DATA  
     128,195,153,153,153,147,201,127  
 1082 DATA  
     254,131,153,153,131,147,153,239

1083 DATA  
 127,193,158,185,57,249,131,254  
 1084 DATA 255,129,231,38,38,38,38,80  
 1085 DATA  
 255,153,153,153,153,153,195,126  
 1086 DATA  
 255,153,153,153,153,153,195,102,80  
 1087 DATA  
 247,148,156,148,128,136,156,247  
 1088 DATA  
 231,153,153,185,185,153,153,231  
 1089 DATA  
 255,153,153,195,102,38,38,80  
 1090 DATA  
 255,129,243,102,204,158,129,255  
 1091 DATA 120,98,120,98,128,24,24,30  
 1092 DATA  
 80,102,195,129,231,38,38,80  
 1093 DATA 80,38,38,231,129,195,102,80  
 1094 DATA 0,80,100,207,129,207,100,80  
 1095 DATA 0,80,38,243,129,243,38,80  
 1096 DATA  
 8,30,248,192,216,208,248,30  
 1097 DATA 0,0,0,124,8,128,198,128  
 1098 DATA  
 0,0,192,252,198,198,198,252  
 1099 DATA 0,0,0,124,198,192,198,124  
 1100 DATA 0,0,8,128,198,198,198,128  
 1101 DATA 0,0,0,124,198,254,192,128  
 1102 DATA 0,0,80,102,98,120,98,98  
 1103 DATA 8,124,0,128,198,198,198,128  
 1104 DATA 0,0,192,252,198,198,198,198  
 1105 DATA 0,0,48,0,112,48,48,120  
 1106 DATA 8,124,0,8,0,8,8,8  
 1107 DATA 0,0,192,192,216,240,216,204  
 1108 DATA 0,0,58,24,24,24,24,80  
 1109 DATA 0,0,0,198,238,254,214,198  
 1110 DATA 0,0,0,252,198,198,198,198  
 1111 DATA 0,0,0,124,198,198,198,124  
 1112 DATA  
 192,192,0,252,198,198,198,252  
 1113 DATA 8,8,0,128,198,198,198,128  
 1114 DATA 0,0,0,248,204,192,192,192  
 1115 DATA 0,0,0,128,192,124,8,252  
 1116 DATA 0,0,48,124,48,48,48,28  
 1117 DATA 0,0,0,198,198,198,198,128  
 1118 DATA 0,0,0,198,198,198,198,108,58  
 1119 DATA 0,0,0,198,214,254,238,198  
 1120 DATA 0,0,0,102,80,24,80,102  
 1121 DATA 8,124,0,198,198,198,198,128

1122 DATA 0,0,0,252,24,48,98,254  
 1123 DATA  
 128,0,128,195,219,211,219,195  
 1124 DATA 24,24,24,24,24,24,24,24  
 1125 DATA  
 248,15,255,128,134,131,145,153  
 1126 DATA 8,0,8,24,58,120,58,24  
 1127 DATA 16,0,16,24,28,30,28,245

ANTIC VOL6 #9  
 JAN '88

|              |     |     |
|--------------|-----|-----|
| DOS          | SYS | 039 |
| DUP          | SYS | 042 |
| AUTORUN      | SYS | 002 |
| MENU         |     | 018 |
| HELP         | BAS | 007 |
| DOC          | TXT | 020 |
| LINKLINE     | EXE | 015 |
| TYPOII       | LST | 009 |
| SSIJ6        | DRV | 001 |
| SSIJ8        | DRV | 001 |
| MAILER       | LST | 009 |
| TOPSHELF     | BAS | 130 |
| AWRITFIX     | BAS | 005 |
| BCOPY        | EXE | 025 |
| BOUNCE       | BAS | 019 |
| PEGBOARD     | BAS | 024 |
| ROLLOUT      | BAS | 033 |
| BIGFOOT      | BAS | 011 |
| HANDCAR      | BAS | 009 |
| SUNSET       | BAS | 007 |
| SSIJOY6      | M65 | 012 |
| BCOPY        | TXT | 027 |
| SSIJOY8      | M65 | 021 |
| SSIJOY6      | BAS | 008 |
| SIJOY8       | BAS | 011 |
| BIO          | BAS | 090 |
| -- SIDE B -- |     |     |
| DOS          | SYS | 039 |
| DUP          | SYS | 042 |
| AUTORUN      | SYS | 002 |
| MENU         |     | 018 |
| HELP         | BAS | 005 |
| LINKLINE     | PRG | 039 |
| DOC          | TXT | 023 |
| PORT         | TXT | 029 |
| PARTA        | BAS | 030 |
| PARTA        | PRG | 067 |
| PARTB        | BAS | 007 |

# ST SECTION

## HINTS & TIPS

### \* CHANGING DISKS

The ST manual says you have to close the window currently active, insert the new disk, then open it's window.

A quicker method is - leaving the window open replace the disk and hit escape. The new disk's directory will be displayed in the active window.

### \* SCROLLING

Simultaneously hold down the control key and press S to stop scrolling a file.

Control & Q will restart scrolling.

Control & C will return the desktop.

### \* COPYING FILES

To copy several files which aren't together in the directory- Hold down the shift key whilst selecting each file you wish to copy with the left mouse button. Then drag all the selected files to the destination disk or folder.

Holding down the shift key and clicking on a file which was previously selected, deselects that file. Handy for copying an entire disk, except for a few files.

If you have more than one window opened and wish to copy a file from an inactive window, without making it active- place the pointer on the file, click the right mouse button, then hold down the left mouse button and drag the file to another window, folder or icon.

### \* COPYING A FLOPPY DISK TO RAM DISK OR HARD DRIVE, OR RAM DISK TO FLOPPY DISK OR HARD DRIVE

Open a window for the floppy disk, ramdisk or hard drive you wish to copy too. Then drag (holding down the left mouse button) the floppy or ramdisk icon to be copied, into the open window.

This method also works for copying to a folder in an opened window.

### \* PRINT THE SCREEN (REQUIRES AN EPSON - COMPATIBLE PRINTER)

Simultaneously press the alternate and help keys to print a snapshot of the screen. If the image doesn't fit on the printed page - select printer config. from the GEM desktop and choose 960 for pixels/line. Save the desktop to make it permanent.

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e.t.c..

# THE FUTURE AND YOUR ST

## NEW LAMPS FOR OLD

### BLITTERS AND ROMS

The Mega ST is basically an expanded ST with some important additions - the blitter chip and the new TOS ROMs.

Atari Corp. will (depending on availability) upgrade your present ST replacing your old ROMs with the new ROMs (new lamps for old?) and blitter chip for around \$200.00.

The blitter chip is a piggy back ROM unit which fits into existing slots on the ST's mother board.

It is purely and simply a very fast memory mover. About five times as fast as the present software in ROM. It is capable of addressing up to 16 Megabytes (the Amiga has a blitter which can address up to 512K).

Software must be written to specifically use this chip, otherwise no advantage is gained. An on/off switch operated from the drop - down menus on the desk top is included in the new operating system ROMs (TOS 1.09).

Software houses are presently modifying their ST software to run with the new ROMs (some programs crash having been written for the older operating system).

As software houses begin releasing programs to take advantage of the blitter chip and the new ROMs we will see software which will make Macintosh and IBM users positively green with envy.

## NEW PRODUCTS

### JUGGLER

A multi-tasking program from Michtron which allows you to have up to 7 GEM programs in memory at the same time. You can switch between them without the hassle of having to save files.

### PC-DITTO

IBM emulator for the ST. Runs Lotus 1-2-3 and most other IBM software.

### SPECTRUM 512

From Antic Software is described as a breakthrough for the ST it allows 512 colours on screen. Will run on an unmodified 520, although you will have to remove the desk accessories from your boot disk. STs built before December 1985 will require the MMU graphics chip upgrade. It has many features including an anti-aliasing tool to smooth out the "jaggies".

### THE BERKLEY INTERFACE

Allows you to connect any standard IBM hard disk drive to your ST.

### ALADIN

Emulates 512K Macintosh. Runs 90% of all 512K Mac software. Boots the operating system direct from the built in Superdisk. Cost \$499.00 (see Paragon add).

### ENCODER/MODULATOR

For early model 520 and 1040 STs which were released without a T.V. modulator. Cost \$120.00. Phone ASTRONICS in Adelaide - 354 0405.

## NEOCHROME ANIMATION

If you have NEOChrome version 0.9 or 1. you may be surprised to know animation is available within the program. Not just colour cycling, but actual page flipping of up to 99 pictures.

To animate, click on the Grabber icon. Then go to the word 'Grabber' appearing to the right and put the point of the arrow in the top left hole of the last 'R'. Press the right mouse button. Now a new icon looking like a movie camera appears in the left group of icons. Amazing!

Go to the drawing screen and create a small object to animate.

Click on the movie camera and go to your object. Click and hold the left mouse button to put a rectangle around it. Allow plenty of room, since this will be where you animate.

Now move the cursor to the right box and click on ADD. Go back to the object and click and HOLD the right mouse button. The Grabber will appear. Use it to move the object slightly. You can use the X and Y guide if you wish. Then go back to ADD and repeat as often as you like. Each ADD creates another animation frame.

Finally, click on one of the arrows in the right box to begin animation. Left mouse button speeds it up, right mouse button slows it down. Be careful not to speed up the animation too much as you will lose the arrow cursor.

Clicking on the opposite arrow with the right mouse button stops the animation.

You can have colour cycling and animation going at the same

time. I drew a little rocket and had streams of fire coming out the rear which I colour cycled with three shades of orange. Then I moved the whole thing with the animation feature.

Clicking on the small COPY BOX icon in the lower centre of the animate menu will place the current animation frame into the cut buffer.

Unfortunately you must have the work screen covering up the bottom half of your picture in order for the animation to run. Apparently this bug has kept this feature 'secret' and undocumented.

The animation feature allows you to save and load in complete animation sequences. The filename has an '.ANI' extender instead of '.NEO'. If you have the famous public domain NeoChrome parrot animation flying across the screen you can load the parrot and animate in NeoChromel There are twenty separate pictures making up the flying motion.

There are a few other features in NeoChrome which are not available in Degas or Degas Elite.

The Jackknife icon allows you to cut around irregular shapes to copy into the cut buffer. You can move an object behind the rest of the picture rather than in front.

I was disappointed in the decision to make version 1.0 the official 'final' release. There is still one blank space in the icon menu. The animation feature is unfinished. And when are they going to make the fill patterns already built into GEM available?

### A REVIEW OF THE LIGHTSPEED 520ST RAM UPGRADE PACK

Tech-Soft in Cottesloe, Western Australia offers a 520K memory upgrade for the Atari 520ST. There's nothing unusual about that what's unusual is that the upgrade is a plug-in-and-run board that fits under the RF shield. No component changes, no trace cuts, no solder (no solder burns).

The LIGHTSPEED 520ST RAM unit attaches to the buffer chips and plugs into the MMU (Memory Management Unit) socket, which is the large square socket near the centre of the 520ST's board, top side. This is accomplished without evicting the MMU, because the socket is designed to permit such additions; the pins and contact are on the sides, not the bottom, of the MMU and the upgrade plug insinuates its pins precisely between the MMU contacts and those of the socket - if everything is aligned correctly and you don't bend any pins.

I can report that I had no difficulty whatever with the installation. As recommended I strapped a grounded cuff to my wrist and went right to work. The entire job took me about ten minutes, from reading the installation instructions to re-closing the case.

You can certainly do an upgrade cheaper if you buy your own chips and piggyback, but you have to decide what your time is worth. Ninety percent of the up-graders I know spent several days after installation, just debugging their equipment - finding poor connections and re-soldering. If you're not highly skilled then the 520 ST RAM Upgrade is the way to go. The unit looks well designed electrically and mechanically.

Now the habituating part:-Tech-Soft is offering additional memory upgrades all the way to 2.5 and 4 Meg. So you'll insert your first half meg and then you start thinking "That was so easy, and it wouldn't be any harder to add just a little more".

You think you won't become addicted? Then consider this: The board I installed can be upgraded to 2.5 and 4 Meg at any time, simply by replacing its 256K chips with 1 Meg chips and moving a few jumpers. Today's 256-kilobit Ram prices may have fallen by the time you read this. If you feel you can source the chips yourself the upgrade to 1 Meg may be cheaper if you buy an unpopulated board also available from Tech-Soft. Now that the 1 Meg chips are entering the scene at a realistic price the upgrade to 4 Meg is no longer just a dream. Who needs 4 Meg? Well a year from now you will be doing a bit of desktop publishing and you'll long for a humongous RAM DISK that will let you scroll rapidly from the top of a large document to the end. Your hard drive is pretty fast, but you don't want pretty fast, you want right now! There is no question that for real efficiency RAM is the way to go.

And now for the prices:

1 MEG Budget Non Expandable version \$249

Deluxe Board as review No Ram Installed \$249.00

Deluxe Board 1MEG \$349 : 1040 Version 2.4 Meg No Ram \$229

Populated boards' prices subject to current Ram Chip prices.

## ATARI MAIL ORDER SPECIALISTS

SHOP 17A. PICCADILLY SQUARE. SHORT STREET. EAST PERTH. WESTERN AUSTRALIA. 6000.

### GFA ARTIST

- \* **GFA Artist** utilizes 2 different Low Res. modes:  
*Low-Res* the normal low resolution mode  
*Low-Res Static* mode lets you use over 1,000 colours on the screen at the same time!
- \* **GFA Artist** is compatible with all standard screen formats (DEGAS, NEOCHROME etc)
- \* **The Function Selection Box** integrates both low and medium resolution into one screen
- \* **You can use the 80-character mode** (medium resolution) for function selection together with the low resolution mode for artwork
- \* **Film-file** (also allows work in both low and medium resolution simultaneously, as well as many other special features

### THE JUGGLER

- \* **The Juggler** is a switching application that lets you keep up to seven GEM applications resident in memory at the same time
- \* **It gives you the power** to quickly move between applications while avoiding the hassle of saving files
- \* **You have easy access to all applications** via the *switch board*. A few mouse clicks will put you instantly where you want to be
- \* **The Juggler** can be configured to automatically load a set of GEM applications

### CIRCUIT MAKER

- \* **Circuit Maker** is a professional full featured program that will enable you to design, construct, and test an unlimited variety of digital circuits
- \* **Device Library** includes all basic gates, flip flops, counters, multiplexers, shift registers, LED's, seven segment LED's, toggle switches, programmable pulse generators and much more
- \* **Waveform Display** allows simultaneous display of waveforms for any four nodes within CCT
- \* **Beginners learning course** includes 6 detailed experiments complete with solutions

### QUANTUM PAINT

- \* **Quantum Paint** gives your ST four additional screen modes with up to 4096 colours on the screen at the same time. Even in medium resolution 32 colours can be displayed
- \* **Delta Frame** animation allows you to create multi colour animated screens, multiple cycling, multiple palette, lasso, Gdos Fonts, screen brushes, smear and much more

**CYBER PAINT**  
**TEACHERS PET**

**U.M.S.**

**HUNT FOR RED OCTOBER**

**K-RIKKI**

**K-RHYMES**

**ANNALS OF ROME**

**TRIVIA TROVE**

**WIZBALL**

**MISSION ELEVATOR**

**CHAMONIX CHALLENGE**

**WIZARDS CROWN**

**FONT MAKER (PUBLISHING PARTNER)**

**ADVANCED ART STUDIO**

**ATHENA CAD II**

**MINICOM**

**TEMPUS**

### ALADIN

The most compatible MAC emulator yet for the ST, runs all the most popular programs

### REAL TIME CLOCKS

### DIGITISING SERVICE

LASER PRINTING (ATARI SLM804), QMS PS 800+, LINOTRONIC.

plotters, plugs, disk drives, hard drives, disks, cables, printers, mouse covers, computer covers, printer stands, monitor stands, document holders, digitisers, books, mags etc

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# COMPUTER OASIS

Shop 37, Upper Level, Grove Plaza  
460 Stirling Highway,  
Cottesloe, Western Australia 6011

Telephone: 385 1885  
Telex: AA 94891  
CD888  
Fax: 386 5574

Dear Sir,

May we take this opportunity to introduce our Company to you and your members.

Back in early 1988 we, MARTIN CARR and LOU SCHILLACI decided to pool our resources and expertise in order to establish a new computer store in Western Australia. A location central to the Capital City of PERTH was chosen and a retail outlet was opened in APRIL of that year. Within 8 months we had out grown our small store and it was decided that a larger shop was required to enable us to properly serve the public.

Even before we had moved to our new location in THE GROVE Shopping Complex, Cottesloe, we had seen that the ATARI ST was definitely the computer that was most suited to both the Public and Corporate markets. In order to gain experience with this machine we both took one home and within 8 months we were fairly competent with its operation in software and hardware. I may add that it wasn't difficult to become engrossed in the machine as we had decided to stock as much software as we could get our hands on, most of it was snapped up by the public as soon as it was landed, but not before we had a good look at each product.

In our search for more knowledge we decided to invest capital in establishing Australias first ST BBS. That BBS was to be called THE OASIS BBS and had its bithday just last week. The BBS was instrumental in the quest to bring the ST to the attention of the general public and to those who had already made up their mind as to which computer was to be their Dream Machine. This of course started many arguments with owners of other machines such as the AMIGA, a machine I add we have never stocked. For interest sake we just to mention that the OASIS BBS is open to all users free of charge, the only cost applicable is a \$10.00 fee payable six monthly should the user wish to use the download facilities.

In order to give maximum benefits to the user the OASIS BBS utilises a LIGHTSPEED 20 Meg HardDisk, 1200/1200 Modem and LIGHTSPEED internal clock not to mention a LIGHTSPEED 1-4 Meg RAM PACK. In addition it also boasts a LIGHTSPEED DDSF314 disk drive system, capable of storing 2 meg on 3.5" format.

This of course leads me to the purpose of this letter of introduction. Yes you guessed it we are agents for the fine range of LIGHTSPEED ATARI products. This line of products had its origins in the USA, UK and Taiwan not to mention Western Australia. Some products are manufactured or assembled here in the West and some are imported from different manufacturers in different countries. All carry the LIGHTSPEED trademark here in Australia and some even carry that name in other countries such as PAPUA NEW GUINEA, NEW ZEALAND, SINGAPORE and BAHRAIN, all countries that we export to.

It is our intention with this letter to invite purchase of any of these products through your user group at a generous discount. These products are now starting to appear in each state and can be also purchased directly through any one of our Dealers in the Eastern States. Should you club require a list of current dealers we would be most happy to supply you with the most up to date list ( the list grows weekly ). However should you wish to know more about our range or wish to take advantage of our "Direct User Group" purchase plan then please do not hesitate to contact this office for further details.

The special discount we offer user groups through the DUG plan also includes Atari's and Other manufacturers products. Accessories are no exception and ofcourse you can also avail your members to our growing list of Software.

In order to show our willingness to offer your members these services we would like to give your user group a FREE LIGHTSPEED TIMEPIECE battery backed up clock for your Clubs ST. All we ask is that you make this letter available to your members through your Magazine.

We hope that your user group takes advantage of our offer and that we may soon hear from both yourself and your members.

yours sincerely,

MARTIN CARR            LOU SCHILLACI

COMPUTER OASIS

-----  
ATARI COMPUTER ENTHUSIASTS (N.S.W)

MEMBERSHIP APPLICATION FORM            (PLEASE PRINT)

NAME: -----

ADDRESS: -----

TOWN: -----

STATE: ----- POSTCODE: -----

PHONE NOS. (\_\_\_\_)-(\_\_\_\_) WORK (\_\_\_\_)-(\_\_\_\_)

ATARI SYSTEM? 65/130/400/600/800/1200/ XL/XE 520/1040/2080/4160 ST/STM  
/STFM

SIGNATURE: ----- AGE

Enclosed is Cash [ ] Cheque [ ] Money Order [ ] FOR -  
\$20.00 - Membership/ Renewal [ ] - \$10.00 PRACS Registration [ ]  
- Change of Address [ ]

-----  
OFFICE USE ONLY

DATE PROCESSED: / /            RECEIPT NO.:

LAST ISSUE

## ABOUT THE ATARI COMPUTER ENTHUSIASTS (N.S.W)

Atari Computer Enthusiasts (NSW) is an independent, non-profit computer users group for owners and users of Atari Computers. ACE(NSW) is loosely affiliated with Atari Computer Enthusiasts throughout the USA, England, Holland, Germany and Ireland. While we are recognised by the Atari Corporation throughout the world, as the official Atari Users' Group in NSW, we have no connection with them.

Our aims include the promotion of the various Atari Home Computer Systems; the education of both beginners and advanced users in programming techniques; exchanging public domain software, hints, tips, ideas, and explaining the Special features of the Atari Computers.

The group is active in many areas and encourages the members to obtain the maximum benefit by participating in all club projects. Of special interest to members are the following:-

- • A bi-monthly journal called 'Inside Info'. This contains the news, reviews, articles, program listings, technical information, hint, tips, help and general articles of interest.

- • A large reference library of Atari Books and technical information.

- • A software exchange programme. Here public domain programs are collected from the user groups across the world, (8 and 16 bit) and issued for sale within the group to members.

- • There are Special Interest Groups (SIGS) which look at the various aspects of the computer. Some run workshops.

- • A Public Remote Access Computer System (a bulletin board) for the free exchange of information between computers using the Australian phone network.

- • Member discounts at various business houses.

- • Cut prices on media such as blank disks.

- Official Meetings are held monthly. They are informal and usually include talks on programming technique, demonstrations of new software and keep the members up to date with the latest news and information from Atari internationally. These meeting are in two parts, with a 15 to 30 minute break for general discussions (getting to meet you) and business.

Everyone is Welcome. Meetings are held at 6:15 PM on the SECOND MONDAY of the Month (NOTE: There is no meeting in January).

The MEETING PLACE : Y.W.C.A. CNR WENTWORTH AVE & LIVERPOOL ST  
DARLINGHURST

FEES. Membership is \$20 per year. To join, Fill in the membership application form (found at the centre of this edition) and send it with a cheque or money order made out to Atari Computer Enthusiasts (N.S.W.) and mailed to the above address. All Mail and enquiries should be addressed to 'The Hon. Secretary'. Alternately, you may pay at any official meeting.

Registration for the PRACS (BBS). Enclose a ONCE ONLY payment for \$10. This covers the administration charges associated with the general running and maintaining the on-line 24 hour system. (02)- 529-2059.